

Amendments to the Claims

Please amend the following claims, where additions are indicated by underlines and deletions indicated by strike-throughs.

1. (Cancelled)
2. (Currently Amended) The spray head of ~~claim 1~~ claim 6, wherein said fluid spray sites are arranged in a linear array, non-linear array, or combination thereof.
3. (Currently Amended) The spray head of ~~claim 1~~ claim 6, further comprising a charged electrode in communication with said fluid spray sites.
4. (Cancelled)
5. (Cancelled)
6. (Currently Amended) ~~The~~ A spray head for use with an electrohydrodynamic spray device, wherein said spray head comprises at least one nozzle configured to provide a charged aerosol from a liquid formulation, said nozzle comprising a manifold having at least one fluid entrance, a plurality of discrete fluid spray sites and a passage to establish fluid communication between said at least one fluid entrance and said plurality of fluid spray sites, said passage configured to branch out from said at least one fluid entrance and into multiple fluidly decoupled paths such that upon traveling from said at least one fluid entrance to any one of said plurality of fluid spray sites, said liquid formulation travels a substantially equal distance regardless of which of a respective one of said fluidly decoupled paths it travels through of ~~claim 1~~, wherein said plurality of fluid spray sites comprise arrays of different geometric shapes and orientations, each configured to maintain a substantially equal flow of said liquid formulation to each of said plurality of fluid spray sites.

7. (Currently Amended) The spray head of ~~claim 4~~ claim 6, wherein said nozzle further comprises a spray shaping mechanism that defines directing electrodes positioned equidistant at opposite ends of said one or more fluid spray sites.
8. (Original) The spray head of claim 7, wherein said directing electrodes are charged at substantially the same polarity and voltage as said fluid spray sites.
9. (Original) The spray head of claim 7, wherein said spray shaping mechanism defines parallel counter electrodes.
10. (Original) The spray head of claim 9, wherein said counter electrodes comprise thin rods that are arranged in parallel with and straddle said one or more fluid spray sites.
11. (Original) The spray head of claim 10, wherein the combination of vertical and horizontal positioning of said parallel counter electrodes in relation to said fluid spray sites effectively provides for directional spraying and variations in the shape of said charged aerosol.
12. (Original) The spray head of claim 11, wherein said directional spraying provides for efficient and targeted application of a sprayable formulation while requiring less active ingredient.
13. (Currently Amended) The spray head of ~~claim 4~~ claim 28, wherein said shroud comprises a dielectric material.
14. (Original) The spray head of claim 13, wherein said dielectric material is polymeric.
15. (Original) The spray head of claim 13, wherein said dielectric material is transparent.
16. (Original) The spray head of claim 13, wherein said dielectric material is opaque.

17. (Original) The spray head of claim 13, wherein said dielectric material is pigmented.
18. (Currently Amended) The spray head of ~~claim 4~~ claim 6, wherein said shroud is configured to physically direct said charged aerosol towards a target.
19. (Currently Amended) The spray head of ~~claim 4~~ claim 6, wherein said shroud surrounds and extends beyond said nozzle, said shroud configured to partially shield said charged aerosol from environmental influences during application of said aerosol to a target.
20. (Original) The spray head of claim 19, wherein said shroud is configured to prevent said charged aerosol from effecting an area surrounding said target.
21. (Currently Amended) ~~The~~ A spray head of ~~claim 4~~ for use with an electrohydrodynamic spray device, wherein said spray head comprises at least one nozzle configured to provide a charged aerosol from a liquid formulation, said nozzle comprising a manifold having at least one fluid entrance, a plurality of discrete fluid spray sites and a passage to establish fluid communication between said at least one fluid entrance and said plurality of fluid spray sites, said passage configured to branch out from said at least one fluid entrance and into multiple fluidly decoupled paths such that upon traveling from said at least one fluid entrance to any one of said plurality of fluid spray sites, said liquid formulation travels a substantially equal distance regardless of which of a respective one of said fluidly decoupled paths it travels through, said spray head further comprising a sensor, ~~said sensor~~ configured to prevent said device from discharging said charged aerosol when positioned in a substantially upside down orientation.
22. (Currently Amended) The spray head of ~~claim 4~~ claim 6, wherein said shroud comprises a plurality of dielectric tines, said tines configured to separate surrounding vegetation from a target.
23. (Currently Amended) The spray head of ~~claim 4~~ claim 6 further comprising a wheel configured to translocate said device.

24. (Original) The spray head of claim 23, wherein said wheel is configured to control the distance of said nozzle from said target.

25. (Currently Amended) The spray head of ~~claim 4~~ claim 6, wherein said spray head is configured to rotate about one or more axes.

26. (Cancelled)

27. (Currently Amended) ~~The~~ An electrohydrodynamic sprayer system of claim 26, further comprising

a control panel;

a power source;

a pumping mechanism;

a fluid container;

a spray head comprising at least one nozzle configured to provide a charged aerosol from a liquid formulation, said nozzle comprising a manifold having at least one fluid entrance, a plurality of discrete fluid spray sites and a passage to establish fluid communication between said at least one fluid entrance and said plurality of fluid spray sites, said passage configured to branch out from said at least one fluid entrance and into multiple fluidly decoupled paths such that upon traveling from said at least one fluid entrance to any one of said plurality of fluid spray sites, said liquid formulation travels a substantially equal distance regardless of which of a respective one of said fluidly decoupled paths it travels through; and

a sensor cooperative with said spray head such that upon detection of a substantially upside down orientation of said spray head by said sensor, said spray head is instructed to stop discharging said charged aerosol.

28. (Currently Amended) The spray head of ~~claim 4~~ claim 6 further comprising a shroud that at least partially surrounds said nozzle.

29. (Previously Presented) A spray head for use with an electrohydrodynamic spray device, said spray head comprising:

at least one nozzle configured to provide a charged aerosol from a liquid formulation, said nozzle comprising a manifold having at least one fluid entrance, a plurality of discrete fluid spray sites and a passage to establish fluid communication between said at least one fluid entrance and said plurality of fluid spray sites; and

a sensor cooperative with said spray head such that upon detection of a substantially upside down orientation of said spray head by said sensor, said spray head is instructed to stop discharging said charged aerosol.

30. (Previously Presented) An electrohydrodynamic sprayer system comprising:

a control panel;
a power source;
a pumping mechanism;
a fluid container;

a spray head comprising at least one nozzle configured to provide a charged aerosol from a liquid formulation, said nozzle comprising a manifold having at least one fluid entrance, a plurality of discrete fluid spray sites and a passage to establish fluid communication between said at least one fluid entrance and said plurality of fluid spray sites; and

a sensor cooperative with said spray head such that upon detection of a substantially upside down orientation of said spray head by said sensor, said spray head is instructed to stop discharging said charged aerosol.

31. (New) The spray head of claim 29, wherein said plurality of fluid spray sites comprise arrays of different geometric shapes and orientations, each configured to maintain a substantially equal flow of said liquid formulation to each of said plurality of fluid spray sites.

32. (New) The spray head of claim 29, wherein said fluid spray sites are arranged in a linear array, non-linear array, or combination thereof.

33. (New) The spray head of claim 29, wherein said nozzle further comprises a spray shaping mechanism that defines directing electrodes positioned equidistant at opposite ends of said one or more fluid spray sites.
34. (New) The spray head of claim 33, wherein said directing electrodes are charged at substantially the same polarity and voltage as said fluid spray sites.
35. (New) The spray head of claim 33, wherein said spray shaping mechanism defines parallel counter electrodes.
36. (New) The spray head of claim 35, wherein said counter electrodes comprise thin rods that are arranged in parallel with and straddle said one or more fluid spray sites.
37. (New) The spray head of claim 36, wherein the combination of vertical and horizontal positioning of said parallel counter electrodes in relation to said fluid spray sites effectively provides for directional spraying and variations in the shape of said charged aerosol.
38. (New) The spray head of claim 29, wherein said shroud comprises a plurality of dielectric tines, said tines configured to separate surrounding vegetation from a target.
39. (New) The spray head of claim 29, further comprising a wheel configured to translocate said device.
40. (New) The spray head of claim 39, wherein said wheel is configured to control the distance of said nozzle from said target.
41. (New) The spray head of claim 29, wherein said spray head is configured to rotate about one or more axes.

42. (New) The spray head of claim 29, further comprising a shroud that at least partially surrounds said nozzle.
43. (New) The spray head of claim 42, wherein said shroud surrounds and extends beyond said nozzle, said shroud configured to partially shield said charged aerosol from environmental influences during application of said aerosol to a target.
44. (New) The spray head of claim 43, wherein said shroud is configured to prevent said charged aerosol from effecting an area surrounding said target.
45. (New) The spray head of claim 21, wherein said spray head is configured to rotate about one or more axes.
46. (New) The spray head of claim 21, wherein said fluid spray sites are arranged in a linear array, non-linear array, or combination thereof.
47. (New) The spray head of claim 21, further comprising a charged electrode in communication with said fluid spray sites.
48. (New) The spray head of claim 21, wherein said nozzle further comprises a spray shaping mechanism that defines directing electrodes positioned equidistant at opposite ends of said one or more fluid spray sites.
49. (New) The spray head of claim 48, wherein said directing electrodes are charged at substantially the same polarity and voltage as said fluid spray sites.
50. (New) The spray head of claim 48, wherein said spray shaping mechanism defines parallel counter electrodes.

51. (New) The spray head of claim 50, wherein said counter electrodes comprise thin rods that are arranged in parallel with and straddle said one or more fluid spray sites.
52. (New) The spray head of claim 51, wherein the combination of vertical and horizontal positioning of said parallel counter electrodes in relation to said fluid spray sites effectively provides for directional spraying and variations in the shape of said charged aerosol.
53. (New) The spray head of claim 52, wherein said directional spraying provides for efficient and targeted application of a sprayable formulation while requiring less active ingredient.
54. (New) The spray head of 21, further comprising a shroud that at least partially surrounds said nozzle.
55. (New) The spray head of claim 54, wherein said shroud comprises a dielectric material.
56. (New) The spray head of claim 55, wherein said dielectric material is polymeric.
57. (New) The spray head of claim 55, wherein said dielectric material is transparent.
58. (New) The spray head of claim 55, wherein said dielectric material is opaque.
59. (New) The spray head of claim 55, wherein said dielectric material is pigmented.
60. (New) The spray head of claim 54, wherein said shroud is configured to physically direct said charged aerosol towards a target.
61. (New) The spray head of claim 54, wherein said shroud surrounds and extends beyond said nozzle, said shroud configured to partially shield said charged aerosol from environmental influences during application of said aerosol to a target.

62. (New) The spray head of claim 61, wherein said shroud is configured to prevent said charged aerosol from effecting an area surrounding said target.